3M™ Potentially Preventable Visit (PPV) Rates by County and Zip Code (SPARCS): Beginning 2011

- All Payer Potentially Preventable Emergency Visit (PPV) Rates by Patient County (SPARCS): Beginning 2011
- All Payer Potentially Preventable Emergency Visit (PPV) Rates by Patient Zip Code (SPARCS): Beginning 2011

OVERVIEW

New York State Department of Health

Office of Quality and Patient Safety

Center for Applied Research and Evaluation

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Health Data NY

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General Description

3M™ Population Focused Preventables Classification System

Potentially Preventable Visits (PPVs) are calculated as part of the 3M™ Population Focused Preventables (PFP) Classification System software. The PFP software is a proprietary set of classification systems for identifying potentially preventable health care events. PFPs focus on three types of health care events: inpatient admissions, emergency department visits and outpatient ancillary services. More information on 3M software classification tools may be found on their website at:

http://solutions.3m.com/wps/portal/3M/en_US/Health-Information-Systems/HIS/Products-and-Services/Classification-and-Grouping/

3M™ PFP Classification System Software Version

Discharge Year	Software Version	Major Changes
2011	1.2	N/A
2012	1.2	N/A
2013	1.2	N/A
2014	1.31	None
2015	1.32	ICD-10 Included
2016	2.02	Significant logic changes
2017	2.2	Significant logic changes*
2018	2.2	Significant logic changes*
2019	2.2	Significant logic changes*
2020	2.2	Significant logic changes*

* Starting with PFP v2.2, PPV evaluation is based solely on the medical reason for why the patient was seen in the ED, not the specific services performed during the encounter. If the medical reason is not assigned, then the PPV evaluation is based on the principal diagnosis.

Data Methodology

3M™ Potentially Preventable Visits (PPVs)

Potentially Preventable Visits (PPVs) are emergency visits for ambulatory sensitive conditions (e.g., asthma) which should be able to be reduced or eliminated with adequate patient monitoring and follow-up (e.g., medication management). In general, the occurrence of high rates of PPVs represents a failure of the ambulatory care provided to the patient. In addition, when a PPV occurs shortly following a hospitalization, the

PPV may be the result of actions taken or omitted during the hospital stay, such as incomplete treatment or poor care of the underlying problem and/or poor coordination with the primary care or specialist physician.

The results of this data can be used to provide insight into the population health and the quality of the health care system outside of the hospital setting. Observed (crude), expected and risk adjusted rates are presented at the county and zip code level to allow comparison with the state average, thereby identifying geographical variation.

Treatment using emergency services can occur in many health care settings. To be considered in the PPV software, outpatient visits must have one of the following revenue codes or Evaluation and Management CPT codes to be included in the classification grouping:

Code	Value
Revenue Codes**	
0450	Emergency department general
0451	EMTALA emergency medical screening
0452	ER beyond EMTALA screening
0456	Urgent Care
0459	Other emergency room
0981	Professional fees-emergency room
Evaluation and Management CPT Codes	
99281	Emergency Department visit (straight forward decision making)
99282	Emergency Department visit (low complexity)
99283	Emergency Department visit (expanded problem focus exam/moderate complexity)
99284	Emergency Department visit (detail exam/mod complexity)
99285	Emergency Department visit (high complexity) are identified as ED visits for a patient

** Starting with PFP v2.2, PPVs are only assigned to visits that occurred in a hospital's emergency department. Emergency department visits with charges for revenue codes 0450, 0451, 0452, 0456, 0459 were considered for PPV evaluation.

The PPV calculations include both inpatient and outpatient data. When an ED stay occurs shortly after a hospitalization, the assignment of PPV may be the result of actions taken or omitted during the hospital stay. In addition, outpatient claims with dates that overlap an inpatient admission are excluded from PPV assignment.

In addition to the observed (crude) rate, expected and risk adjusted rates are also calculated. The expected rate adjusts by the following age group, gender and race/ethnicity levels of classification.

- **Age group in Years (18 categories)**: <=4; 5-9; 10-14; 15-17; 18-24; 25-29; 30-34; 35-39; 40-44; 45-49; 50-54; 55-59; 60-64; 65-69; 70-74; 75-79; 80-84; 85+

- **Gender (2 categories)**: Male; Female

- **Race/Ethnicity (5 categories)**: 1) Spanish/Hispanic origin; 2) Not Spanish/Hispanic origin-White; 3) Not Spanish/Hispanic origin-Black; 4) Not Spanish/Hispanic origin-Asian; 5) Not Spanish/Hispanic origin-Native American, Hawaiian/Pacific Islander, All other race.

How to Interpret the Rates

The denominator population base was identified through the use of proprietary Claritas files. Claritas data are proprietary and have been purchased from Claritas for use by employees of the State Department of Health. Data from these files cannot be released to any third party without the prior written consent of Claritas, therefore these publicly released files do not contain denominator counts.

PPV counts are identified through the use of the 3M Population Based Preventable software. PPVs are only assigned to visits that occur within a hospital's emergency department. A list of non-medical and medical patient groups (EAPGs) that represent ambulatory sensitive conditions are defined for PPV identification. Patients with ED visits assigned to a medical EAPG and have a primary diagnosis identifying an ambulatory sensitive condition are identified as PPV candidates. Moreover, patients with a non-medical EAPG that defines an ambulatory sensitive condition are identified as PPV candidates. In addition to the criteria above, patients admitted from a residential nursing facility with a primary diagnosis related to trauma are also PPV candidates.

The **observed PPV rate** (per 100 people) is the number of PPV divided by the population. **Lower rates represent better results.**

The **expected PPV rate** (per 100 people) is the number of PPV adjusted by age group, gender and race/ethnicity divided by the population.

The **risk adjusted PPV rate** (per 100 people) was calculated by dividing the observed PPV rate by the expected PPV rate, multiplied by the statewide observed PPV rate. The statewide rate is the sum of PPV discharges divided by the population of interest (zip code or county).

Data that had an out-of-state zip code or county were excluded from the zip code and county analysis datasets.

SPARCS Data Collection Process

SPARCS outpatient and inpatient discharge records were used to identify Potentially Preventable Visits.

SPARCS is a comprehensive all payer data reporting system established in 1979 as a result of cooperation between the health care industry and government. Initially created to collect information on discharges from hospitals, SPARCS currently collects patient level detail on patient characteristics, diagnoses and treatments, services, and charges for every hospital discharge, ambulatory surgery and emergency department visit in New York State.

The enabling legislation and regulations for SPARCS are located under Section 28.16 of the Public Health Law (PHL), Section 400.18 of Title 10 (Health) of the Official Compilation of Codes, Rules, and Regulations of the State of New York (NYCRR).

More information on how SPARCS data is collected may be found at the following direct link: http://www.health.ny.gov/statistics/sparcs/data_collection.htm

More information on SPARCS may be found on the New York State Department of Health's website at the following direct link: https://www.health.ny.gov/statistics/sparcs/

Limitations

Transition from ICD-9-CM to ICD-10-CM Coding System: The ICD-10-CM coding system was implemented starting from October 1, 2015. While the PPVs for the calendar year (CY) 2015 were calculated using one version of the 3M™PFP grouper (1.32), grouper logic was applied to the ED visits that were reported using both coding schemes (ICD-9 and ICD-10). Therefore, PPV rates calculated for CY 2015 should be treated with caution as they might reflect the change in the coding system and not the trends in PPV rates.

Software Version Changes: There may be modifications of the quality indicator logic incorporated into version changes of the PPV software. Therefore, trends in rates must be interpreted with caution when completing longitudinal analysis across years that utilize different versions of the PPV software.

De-Identified Data Use Limitations: The datasets contain patient's zip code or county and observed, expected and risk adjusted PPV rates by discharge year. It does not contain data that is protected health information (PHI) under HIPAA. The health information is not individually identifiable.

Data is Subject to Change

At the time of this data release, there are facilities that are not in full compliance with applicable reporting requirements. For more information visit: https://www.health.ny.gov/statistics/sparcs/.

Population Estimates

Rates for zip codes with low population or significant variation in population across years should be interpreted with caution.

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